Interreg Baltic Sea Region

Co-funded by the European Union

SMART GREEN MOBILITY CITYAM

Harmonising City Strategies towards Urban Air Mobility

A Report to Accompany Output 2.4, the CITYAM UAM Roadmap

June 30, 2025

Authors: Denise Braemer, Hamburg Aviation; Renske; Martijnse-Hartikka, Forum Virium Helsinki; Zacharoula Syrivli, Forum Virium Helsinki; Johanna Löfblom, Stockholm City; Karolina Pamp, Kista Science City; Jaanus Müür, Tallinn University of Technology; Kristaps Niedols, Riga City; Jānis Andiņš, Riga City; Magdalena Szymanska, City of Gdansk; Ingrit Roosileht; Estonian Aviation Academy; Jannus Tamm, Tartu City

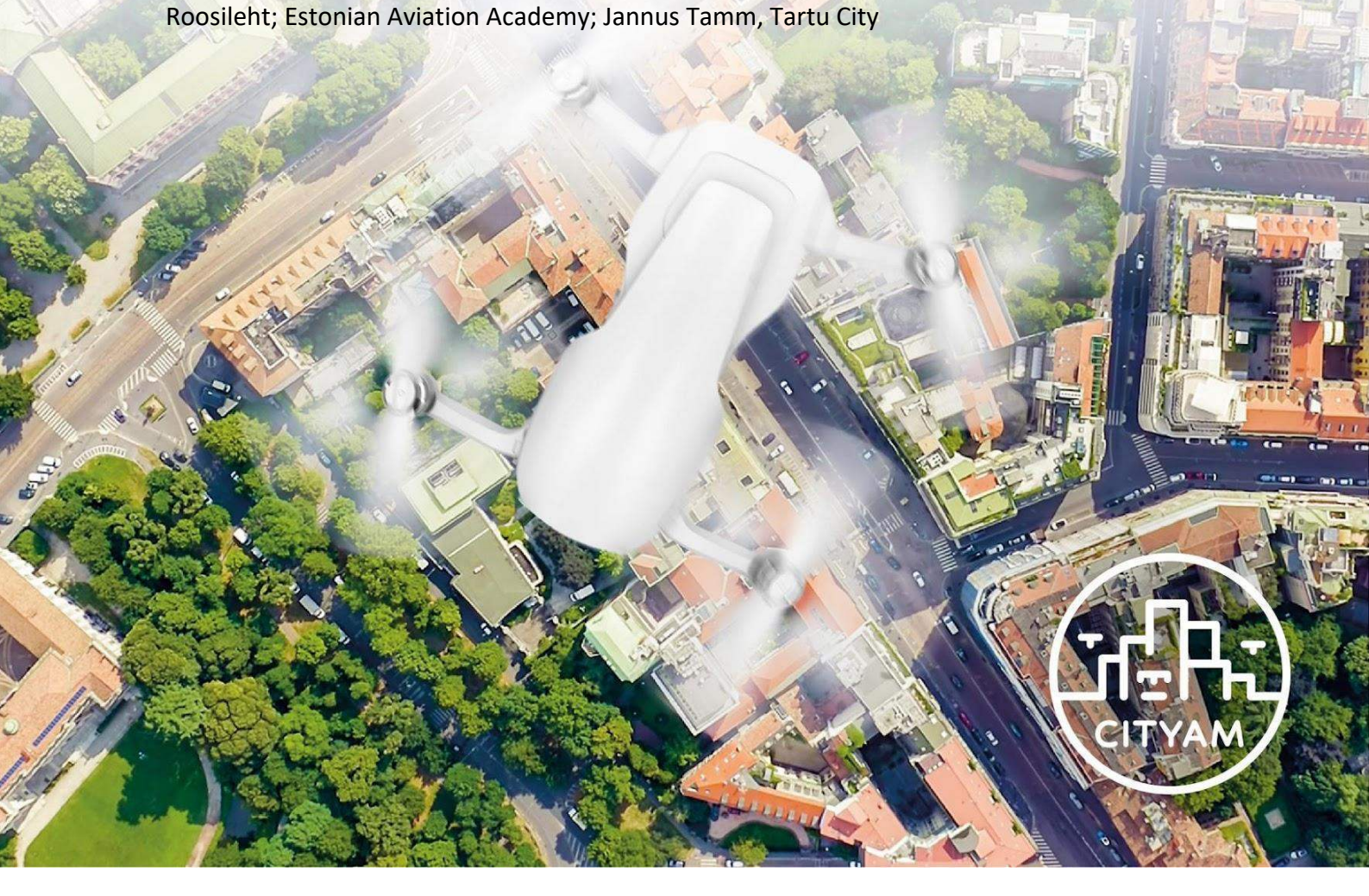

Table of contents

1. Introduction: CITYAM's Approach to Harmonising City Strategies

The cities involved in this project have taken steps to develop or refine their approaches and strategies toward integration of urban air mobility (UAM), by beginning to align them with their city's existing policy documents and plans. The primary objective of the UAM Roadmap, an output of Activity 2.4, which this report accompanies, is to incorporate the experiences and insights gained throughout this project into updated and comprehensive city UAM strategies.

Due to the fact that city planning cycles and updating of policy documents can take several years, our aim in this activity was to raise awareness of UAM integration amongst public authorities and political stakeholders who are involved in these policy development processes. A crucial aspect of the UAM integration process is building internal knowledge and capacity within city departments, many of which currently lack familiarity with UAM and its potential to contribute to sustainable urban solutions. Through various stakeholder engagement formats that were carried out in each of the consortium cities, the project aims to equip city departments with the knowledge needed to actively participate in the strategy development process.

This process will continue in our cities and beyond, past the timeline of this project and we will continue the collaborative process with the active involvement of relevant city authorities, departments and other local stakeholders. By sharing lessons learned across our borders, this project not only strengthened each city's approach to incorporating UAM in our own planning documents/policies, but also contributed to the creation of these broader guidelines in the roadmap that other cities beyond the CITYAM consortium can use as a foundation when beginning their own UAM strategies.

Concrete actions that have been carried out over the course of the project and are continuing to be undertaken in the six cities, include regular update meetings, local workshops, roundtable discussions to identify and prioritize strategic updates based on specific local needs, as well as cross-border exchanges. All six cities in the project, Hamburg, Helsinki, Stockholm, Riga, Tartu, and Gdansk go into greater detail in the report below outlining which stakeholders they included, how they involved them, and which policy documents may need to be considered in the next cycle of updates for UAM inclusion.

1.1 Background on the CITYAM UAM Roadmap

This report is designed to accompany Output 2.4, the **CITYAM UAM Roadmap**, and provide more detailed information and guidance on how to use it. It is based on the 12 principles of the SUMP (Sustainable Urban Mobility Plan, promoted by the European Commission as a best-practice approach to mobility planning), which in this case includes the perspectives and experiences of the 6 CITYAM partner cities when it comes to urban air mobility integration in their cities.

Our approach to the UAM Roadmap was to begin by setting it up into four phases: 1) preparation & analysis, 2) strategy development, 3) policy measures, and 4) implementation & monitoring. Concurrently, we set up 4 themes: stakeholder engagement & management, regulation & policy, technology & innovation, and business & drone services development, which the four phases cover in a step-by-step format, to break down this complex undertaking into smaller sections with the ultimate goal of safe, successful UAM integration in cities.

In developing the roadmap, we kept the text short and succinct so that this remains a user-friendly overview. What may be helpful while reading through the roadmap, is to consider the following questions that came up in dialogue with various stakeholders working on integrating UAM into a busy urban landscape and airspace. We utilised these questions as guidelines that helped us set up this roadmap in a way that included the most relevant stakeholders and processes.

1.1.1 Roadmap Phases

Phase 1, Preparation & Analysis

What are our resources? What is our planning context/processes? What are our main problems and opportunities that can be solved/improved upon through UAM integration?

Phase 2, Strategy Development

What are our options for the future? What kind of city do we want (innovative, sustainable, etc.)? How will we determine successful integration?

Phase 3, Policy Measures

What will we do concretely? What policy actions can be taken? What will it take and who will do what?

Phase 4, Implementation & Monitoring

How can we manage this integration process well? How are we doing? What have we learned?

1.1.2 Roadmap Themes

Stakeholder Engagement & Management

In this theme, the emphasis is placed on identifying and involving key internal stakeholders (such as city departments and political actors), external industry partners (like drone manufacturers and service providers), and the public, including citizens in areas affected by drone flights. Engagement strategies should include regular meetings, public demos, surveys, and workshops to gather input, align understanding, and co-develop UAM strategies. A strong focus is placed on transparency, continuous feedback, and early involvement of decision-makers and innovation units. The plan also highlights the

importance of preparing clear communication and response strategies to address public concerns and resistance.

Goal: Stakeholders have been actively involved in the city's Urban Air Mobility (UAM) planning by contributing to use case development and proposing integration solutions. They also played a key role in shaping the strategy and defining specific measures to enhance public acceptance of UAM.

Regulation & Policy

This section outlines a structured approach to integrating UAM within the existing regulatory and policy framework at city, regional, national, and EU levels. It emphasizes mapping current regulations, identifying necessary permits, and addressing gaps that could hinder UAM implementation. Cities are encouraged to update planning documents and permitting processes, involve decision-makers in small-scale demos, and secure political support through formal commitments. Key actions include defining acceptance criteria (e.g., noise levels, landing sites), using GIS tools for planning take off and landing sites, lobbying aviation authorities and policymakers, and identifying potential flight routes and impacted areas.

Goal: City officials are informed about new regulations related to UAM integration, and clear plans for implementation are in place. UAM has been incorporated into the city's overall strategy, with relevant planning documents updated accordingly.

Technology & Innovation

In this theme, we explore the central role of technology and innovation in the successful integration of UAM into city planning. Cities are encouraged to inventory existing UAM technologies, explore emerging solutions, and develop public-private partnerships that drive innovation. Strong collaboration with universities and research institutions is key, with a focus on identifying ongoing UAM-related research, involving academic experts, and aligning innovation efforts with urban development goals. Technological scenarios — such as those related to drone operations, environmental impacts, and public acceptance — should be developed, tested, and prioritized based on city needs. Cities should also map airspace suitable for drone use, assess operational costs, and host innovation-focused events to foster engagement. Identifying skill gaps, developing targeted training, and promoting UAM in STEM education are essential to building long-term capacity. Risk analysis and performance monitoring should accompany all innovations to ensure safe, sustainable, and future-proof implementation.

Goal: New policies have been implemented to incorporate UAM into the city's strategy, with planning documents updated accordingly. Collaboration between the city and educational institutions has been strengthened, ensuring that UAM-related technology and innovation align with broader urban development goals.

Business & Drone Services Development

A strategic approach to developing business opportunities and drone services is an important aspect for cities who want to implement drones. It begins with defining a city's role — does the city wish to be an enabler or frontrunner? Cities are encouraged to support business development in this developing industry by investing in both digital and physical infrastructure, offering subsidies, tax incentives, and designated test areas for drone operations. Cities should also explore commercial feasibility of drone services, engage with industry groups, and track progress using defined KPIs such as number of deployments, operator involvement, and infrastructure upgrades. Ultimately, this approach positions UAM as a driver for economic growth, innovation, and high-skilled job creation.

Goal: The city aims to be business-friendly for drone operations that align with its overall strategy, focusing on reducing service costs and improving efficiency. Additionally, the majority of citizens are satisfied with the presence and impact of drone services in their daily lives.

2. Experiences from Partner Cities Related to Stakeholder Engagement & Management

In this chapter, the CITYAM partner cities provide examples of how we engaged stakeholders in each of our cities through various types of interactions such as meetings, workshops, regular sync-ups, interviews, roundtables and more.

Certain formats proved particularly successful in fostering collaboration and gathering valuable input and this is the kind of information we would like to share, as well as what did not work as well. The feedback received often focused on key challenges, opportunities, and concerns related to urban air mobility, helping shape strategies that reflect local needs. Based on this experience, we would recommend other cities adopt a flexible approach that combines different engagement formats to maintain ongoing dialogue, encourages open communication, and ensures that stakeholder perspectives are continuously incorporated throughout the planning and implementation processes.

It serves as inspiration and example for other cities that are stepping on the path of urban air mobility and are considering if and how to engage with their stakeholders and citizens.

2.1 Hamburg

Engagement with public authorities: We began introducing CITYAM at a dedicated workshop focused on Urban Air Mobility (UAM) in Hamburg in January 2023, by bringing together a wide range of public authorities to align on shared goals and explore the implications of UAM integration for the city. This foundational meeting laid the groundwork for a structured, recurring engagement process throughout the year.

Following this introduction, we established a series of recurring coordination mechanisms to maintain momentum and foster regular exchange with key stakeholders. Bi-monthly sync-up meetings were held between the drone network Windrove within the aviation cluster, Hamburg Aviation, and the BWI's Cluster Politics Division to ensure alignment on CITYAM milestones, regulatory developments, and political positioning. In addition, Windrove coordinated twice monthly with both the Cluster Politics Division and the Air Traffic & Northern German Cooperation in the Metropolitan Region Legal Division of the BWI to address issues related to airspace regulation and inter-regional collaboration.

Complementing these were monthly cross-agency meetings involving a broader set of city public authorities focusing on project updates, coordination of upcoming activities, and involvement in demonstration flights.

Engagement with Industry & City Stakeholders: We also hosted a handful of UAM networking events throughout the project where the CITYAM project was once again presented to a diverse set of stakeholders. This included drone original equipment manufacturers (OEMs), active research projects, consultants working on UAM, academic institutions, and public authorities as well as our associated partners. The event served as a platform to share knowledge, spark new collaborations, and further embed UAM within Hamburg's innovation ecosystem.

A major highlight during the project was the opening of Hamburg's dronePORT at the HPA site on June 14, 2024. This event was attended by local political representatives, first responders, and public authority stakeholders. Attendees were given a firsthand look at our use-case flights for the project, showcasing the operational capabilities of the drones and the take off and landing site and their relevance for Hamburg's future mobility and UAM infrastructure.

The Hamburg police & fire departments are now interested in utilizing drones for services such as patrolling the River Elbe out to Neuwerk, an island within the jurisdiction of Hamburg and which is currently being flown to with helicopters.

Ongoing engagement with Hamburg's public authorities remains a priority. We are continuing our bi-weekly coordination meetings to share progress updates and have invited stakeholders to attend dronePORT demonstration flights. During one such visit, we welcomed the State Councillor of Hamburg, presented CITYAM results, and discussed key findings from recent public acceptance surveys and operational test flights.

Engagement with Citizens: To further engage citizens and raise public awareness, we significantly expanded our media outreach and invited Hamburg-based news reporters (TV, radio & print) to attend public events. In the second year of the project we organized open-door events at the dronePORT and distributed 5,000 flyers to residents living nearby, inviting them to learn more about UAM and CITYAM activities and view demonstration

flights. These efforts resulted in widespread media coverage, including interviews on radio and evening news, as well as features in local newspapers and magazines — greatly increasing our visibility and reach.

Together, these activities represent a comprehensive and collaborative approach to embedding UAM into Hamburg's urban landscape. The combination of structured authority engagement, broad stakeholder outreach, live demonstrations, and citizen-focused communication has helped build a robust foundation for the CITYAM project and its long-term integration into the city's transport and innovation strategy.

Hamburg Policy Updates

During the project, some policy documents that were published/are about to be published, which addressed UAM integration into the city including:

- Ministry for Economy and Innovation (BWI) Policy Paper — this policy white paper focused on the use of drones in the city, summarized all of Hamburg's activities from 2017 to the present, and provided fundamental guidelines from a regulatory perspective. The white paper was a sound foundation for the City of Hamburg drone strategy that will follow in 2025, which the BWI is already developing for Hamburg together with Windrove and which will significantly shape the future path for industry and applications in the Hamburg metropolitan region.
- The Hamburg Drone Strategy is expected to be released in the autumn of 2025, seeks to promote environmentally friendly drone technologies and accepted applications of drones in urban areas, enable products and services from Hamburg for the global market (promote viable business models), expand investments and funding through public and private means and expand and further network the diverse UAM ecosystem of the metropolitan region.

2.2 Stockholm

Stockholm has actively engaged key stakeholders in integrating Urban Air Mobility (UAM) into city policy documents. A collaborative workshop was first held with representatives from relevant city departments, including urban planning, environmental management, traffic administration, and the city management office. These departments were identified as crucial to the future governance of UAM.

The workshop focused on determining which policy documents should incorporate UAM and exploring effective strategies for citizen and stakeholder engagement. By involving key municipal actors early in the process, Stockholm is ensuring a coordinated approach to urban air mobility, promoting sustainable integration into the city's long-term planning.

The next step to identify ways to integrate UAM in Stockholm's policies was to invite the same participants from the workshop to separate interviews per city department. The purpose of this method was to hold easygoing, honest and open discussions on how each department can integrate UAM. Every department demonstrated interest, engagement, and a willingness to contribute to the city's ongoing efforts in UAM, despite varying levels of familiarity with the subject. The conversations created valuable insights to the current situation, as well as the organisational needs and perceived potential related to UAM. This method was really successful to get key insights in the actual level of readiness for the integration of UAM in Stockholm.

Summary of key insights from interviews:

1. Knowledge and awareness of UAM

Several departments acknowledged that their current knowledge is insufficient to engage meaningfully in UAM strategy development:

- The **Environmental Department (MF)** and **urban planning department (SBK)** expressed a need for foundational knowledge and support to assess drone-related initiatives, citing both opportunities and regulatory concerns (e.g. noise, safety, environmental legislation).
- The **City management office (SLK)** noted that many departments are not yet prepared to address UAM and called for centrally coordinated action.
- The **Traffic Department (TK)** emphasised the need for clearer definitions and guidelines in strategic city planning.

Conclusion: There is a clearly identified need for capacity building, awareness-raising, and structured knowledge exchange to enable active departmental participation in UAM strategy development.

2. Governance, coordination and strategic alignment

All departments highlighted the need for clearer mandates, coordination mechanisms, and integration of UAM into existing governance structures:

- **TK** pointed to the lack of designated responsibilities and policy direction regarding UAM.
- **SLK** emphasised the need for central guidance tools and proposed assuming responsibility for matters such as drone identification systems and landing infrastructure.
- **SBK** recommended the prompt inclusion of UAM considerations within the city's Noise Strategy and Comprehensive Plan (Översiktsplanen).

Conclusion: There is a strong willingness to incorporate UAM into established policy frameworks, but a lack of internal coordination and defined responsibilities must be addressed.

3. Use cases and practical relevance

The interviews identified a range of potential applications where drones and UAM solutions could bring value:

- **TK** mentioned infrastructure inspection (bridges, pavements), climate monitoring, and urban safety enhancements.
- The **Environmental Department** highlighted potential for environmental monitoring, including air and water quality sampling.
- **SBK** underlined the relevance of drones in connection with mobility hubs and future land-use planning.

Conclusion: There is broad interest and concrete use cases for UAM across departments, but these must be systematically defined and evaluated to support integration into urban policy.

Recommendations for further action

- Design and implement targeted capacity-building workshops for key departments
- Develop proposals for integrating UAM into existing strategic documents (e.g. Noise Strategy, Overview Plan, Maintenance Framework)
- Facilitate internal dialogue to define roles, responsibilities, and necessary policy instruments
- Encourage cross-border learning and collaboration through platforms such as UIC2
- Workshop around UAM strategy framework that is developed within activity 3.3.

2.3 Helsinki

The stakeholder engagement in Helsinki involved various types of interactions, including among others recurring bi-weekly coordination meetings with the Strategic Spatial Planning Unit of the city of Helsinki (Associated Organisation 1), pre-feasibility discussions on drone operations with national authorities as well as regular meetings (both online and physical) with infrastructure and public service providers as well as other projects in Finland working on the Urban Air Mobility (UAM) topic. Workshops were utilised to raise awareness among different city units, regional authorities, and other local stakeholders. Invitations were extended for various local Urban Air Mobility events and Helsinki pilots across different stakeholder groups. Email communication was a constant method for coordination and

knowledge sharing. Lobbying activities were undertaken with national authorities. Engagement with citizens focused on disseminating surveys, raising awareness through various media, and implementing targeted communication for Helsinki pilots.

The stakeholder engagement strategy in Helsinki has been a multi-faceted and continuous effort, aimed to foster collaboration, address concerns, and ensure the successful integration of UAM within the city's existing infrastructure and societal fabric. This involved a spectrum of interactions, each tailored to the specific needs and roles of different stakeholder groups.

Coordination with Local Authorities: Recognising the crucial role of local governance in urban planning, recurring bi-weekly coordination meetings with the City of Helsinki were established. These regular sessions served as a vital platform for consistent dialogue, information exchange, and joint efforts. They facilitated the integration of UAM considerations into broader city development plans and ensured alignment with local regulations and priorities.

Consultation with National Authorities, Public Service Providers, and the Medical Sector: Prior to detailed planning and implementation of the two pilot projects and related drone operations, in-depth pre-feasibility discussions were held with key national authorities (e.g. Civil Aviation Authority, Air Navigation Service Provider). These consultations aimed to facilitate the obtaining of the necessary approvals by the drone operator, and align the Helsinki UAM vision with broader EU and national regulatory frameworks. Recognising the critical role of emergency services and healthcare, the medical sector — notably the logistics department of the City's Healthcare division as well as the Helsinki City Rescue Services — were also actively involved in pre-feasibility discussions to address potential use cases for UAM in medical transport and to ensure safety protocols were aligned.

Engagement with Public Service Providers and the drone industry: Extensive engagement with infrastructure and public service providers (notably the city-owned logistics and maintenance service provider) was undertaken to assess the feasibility of integrating UAM within existing networks and to explore potential synergies. Beyond the initial pre-feasibility phase, regular online and physical meetings were a cornerstone of the engagement with public infrastructure providers and drone operators. These ongoing interactions facilitated detailed technical discussions, addressed logistical challenges, and fostered a collaborative approach to developing the necessary conditions for local drone operations.

Workshops for Local, Regional and National Authorities: To cultivate a deeper understanding and secure support for UAM among Finnish authorities, dedicated workshops were organised with various city units (e.g. Strategic Spacial, Environment, Legal), city subsidiaries responsible for healthcare logistics and maintenance services as well as other authorities (e.g. Port of Helsinki, Helsinki Rescue Department, Helsinki Regional Transport, Regional Council). These sessions served as platforms to raise awareness about

the potential benefits, and challenges, fostering informed decision-making and promoting a shared vision for its integration into Helsinki's urban landscape. Furthermore, invitations were consistently extended to various UAM events and Helsinki-based pilots across a diverse range of stakeholder groups. This proactive approach provided first hand exposure to drone operations, allowing stakeholders to witness the technology in action and engage directly with the progress being made.

Panel sessions at local / national UAM events: To engage stakeholders that are not yet so involved in the UAM topic or that are otherwise harder to reach, it was considered useful to talk about CITYAM in local, national (and international) panel sessions. Representation in the panels was by Project coordinator Forum Virium Helsinki as well as City of Helsinki, who is the main Associated Organisation to CITYAM. Examples are a session on UAM at the yearly conference of the Finnish Association of Municipalities and Regions, a UAM event at the City Hall for various city divisions and other local actors such as research organisations or companies. This sort of engagement demystified UAM for a wider audience, having increased understanding and facilitated crucial dialogue on operational (e.g. infrastructure, regulation) and societal integration. The interactive nature of these discussions encouraged direct communication, and led to a more cohesive local UAM development approach.

Email Communication for Continuous Coordination and Knowledge Sharing: Complementing the formal meetings and workshops, email communication served as a constant and efficient method for coordination, information dissemination, and knowledge sharing among all relevant stakeholder groups (e.g. local and national authorities, infrastructure and public service providers, medical sector). This ensured that stakeholders were kept informed of developments, and maintained a cohesive understanding of the project's progress.

Lobbying Activities with National Authorities: Recognising the importance of a supportive national regulatory environment, targeted lobbying activities were undertaken with national authorities. These efforts — both by Forum Virium Helsinki and City of Helsinki U-space Project — aimed to advocate for policies and frameworks that would facilitate the safe and efficient deployment of UAM, addressing potential regulatory hurdles and fostering an enabling environment for innovation.

Citizen Engagement: Acknowledging the importance of public acceptance for UAM integration, a comprehensive citizen engagement strategy was implemented. This involved disseminating surveys to gauge public opinion regarding UAM, both at the time of the pilot/demonstration flights as well as at other times. Awareness was raised through various media channels to educate the public about the potential benefits and implications of UAM and also at in-person open-air events for residents (on wider smart city topics) taking place in the city. Furthermore, targeted communication initiatives were specifically designed for

Helsinki pilots to inform local communities about ongoing trials, address potential concerns, and foster a sense of participation in the development of UAM in their city.

During stakeholder engagement, discussions initially covered potential UAM cases that could be actualised in Helsinki's urban environment for the city's benefit, alongside their perceived risks. It also covered the city's environmental concerns over noise levels in residential areas. Additional discussions covered the challenges of integrating UAM with existing systems, infrastructure, and regulatory frameworks. The City of Helsinki also considered the long-term vision for UAM in Helsinki, including the development of a city strategy and local regulations.

2.4 List of Stakeholders to Involve in UAM Integration & Methods of Engagement

Early on in the project, an important realization was that there are many different departments that need to be informed and involved and we found it helpful for each city to list which public authorities and other city stakeholders need to be made aware of UAM in general, but also to get them involved with, or perhaps even thinking about how to implement drones for city applications. This list from all six cities in the consortium seeks to serve as a guide for other cities looking to involve their authorities and departments, which ones they may want to consider including.

Hamburg

Municipal & Regional Stakeholders of Hamburg

- City of Hamburg Administrative Departments (district offices)
- Office for the Interior and Sport (BIS),
- Authority for the Environment, Climate, Energy and Agriculture (BUKEA)
- Authority for Culture & Media (BKM)
- Authority for Economics & Innovation (BWI)
- Hamburg Port Authority (HPA)
- Authority for Urban Development and Housing Hamburg (BSW)
- Fire & Police Departments
- Senate Chancellery
- State Roads, Bridges and Water Authority (LSBG)
- Authority for Transport and Mobility Transition (BVM)
- Authority for Schools and Vocational Training (BSB)

Federal Stakeholders in Germany

- Federal Ministry for Economic Affairs and Climate Action (BMWK)
- Federal Ministry for Transport (BMV)

- German Aerospace Center (DLR)

Stockholm

Federal

- The Environmental Protection Agency (Naturvårdsverket) — There are no national guideline values or assessment grounds today in Sweden if drones are creating noise pollution or not.
- Police and fire department — UAS operations

Municipal

- Bromma tower at Bromma airport (Luftfartsverket)

Stakeholder Engagement:

With the city administration/departments:

- Develop a drone forum with all registered drone pilots within the city of Stockholm as an operator to share and exchange knowledge about CITYAM and their experiences. Hold about four meetings, one per quarter.

With citizens:

- Invite local citizens and organizations in Farsta to the opening of the drone in a box for our use case that will take place hopefully summer 2025
- Implement a quantitative survey with local citizens and organizations in the area of our use case
- Send out information a few months before to all local households and organizations via mailboxes about our use case
- Collaborate with Farsta district administration who is the closest to the locals in Farsta

With political stakeholders:

- Invitations to attend UAM-related events and demonstrations such as the opening of the drone in a box/drone pilot for our use case that will take place hopefully summer 2025.

Helsinki

- **Local authorities:** Mayor of the City and high ranked city officials; various city units (i.e. Strategic Urban Planning; Environmental; Traffic; city unit that handles permits for city-owned land use; city unit responsible for healthcare logistics; Helsinki Police; Helsinki Rescue Department; Helsinki port; local authorities of neighbouring cities
- **Regional authorities:** Association of Finnish Municipalities and Regions; Helsinki Regional Transport Authority; Helsinki-Uusimaa Regional Council

- **National authorities:** Ministry of Transport; Civil Aviation Authority; Air Navigation Service Provider; national HEMS operator; Police (national level)
- **Infrastructure & public service providers:** City-owned infrastructure provider; drone operators
- **Medical sector:** Healthcare workers of public hospital / healthcare centers; Blood bank
- **Research institutes**
- **Citizens**

Stakeholder engagement:

Local authorities:

- Regular email communication (e.g. coordination of actions, knowledge sharing)
- Bi-weekly meetings to coordinate actions, advance UAM in Helsinki and lay the foundation for a city strategy
- Co-organisation of events (e.g. UAM seminar for Finnish cities, city event to raise awareness internally)
- Workshops to raise awareness how drones will be a part of the daily work of city employees in the near future
- Invitations to workshops / UAM events / Helsinki pilots

National authorities:

- Pre-feasibility discussions in relation to Helsinki pilots
- Email communication (e.g. knowledge sharing, CITYAM progress)
- Lobbying activities (e.g. necessity of regulations and relevant procedures for drone operations)
- Invitations to workshops / UAM events / Helsinki pilots

Infrastructure & public service providers:

- Discussions in relation to Helsinki pilots in healthcare logistics
- Involvement in the tendering process for Helsinki pilots
- Cooperation in implementing Helsinki pilots
- Discussions in relation to challenges faced currently by drone operators
- Regular meetings (online + physical)
- Invitations to workshops / UAM events

Citizens:

- Disseminate the public acceptance survey
- Raise awareness via press releases / newsletters / social media posts

- Implement comms actions (e.g. posters, info sessions) particularly targeted at citizens in relation to Helsinki pilots
- Media coverage of Helsinki pilots in water rescue operations and insights on the drone topic in general

Medical sector:

- Discussions on how drones can support healthcare services and the medical sector, and how to overcome existing challenges (e.g. lack of regulation / necessary procedures)
- Pre-feasibility discussions in relation to Helsinki pilots in healthcare logistics, and site visits

Research institutes:

- Knowledge exchange based on ongoing UAM projects

Tartu

List of stakeholders:

- **Local authorities:** Mayor of the City and deputy mayors. Heads of city departments; Department of Architecture and Building; Department of Business Development; Department of Communal Services; Department of IT Systems Management; Department of Municipal Property; Department of Public Relations; Department of Urban Design; Association of municipalities of Tartu County; Estonian Rescue Board (local level); Police and Border Guard Board (local level); Municipalities of Tartu County;
- **National authorities:** Ministry of Climate; National Transport Authority, Estonian Rescue Board (national level); National Data Protection Inspectorate
- **Infrastructure & public service providers:** City contractors; drone operators; private companies
- **Medical sector:** Hospital of the University of Tartu

Methods of stakeholder engagement:

Local authorities:

- Email communication on daily basis (e.g. coordination of actions, knowledge sharing)
- Bi-weekly meetings (ZeroEst) to coordinate actions
- Co-organisation of events
- Common dissemination of Public Acceptance Toolkit
- Workshops to raise awareness how drones will be a part of the daily work of city employees and common testing solutions (GIS-tool)
- Invitations to workshops /events /pilots

National authorities:

- Discussions in relation to land risk assessment for BVLOS and data protection
- Email communication
- Lobbying activities
- Invitations to workshops /events /pilots

Infrastructure & public service providers:

- Discussions in relation to pilots
- Involvement in the tendering processes
- Discussions in relations to challenges in legislation and other topics
- Regular meetings (ZeroEst initiative)

Citizens:

- Disseminate the public acceptance survey (both general and use case parts)
- Raise awareness via press releases / newsletters / social media posts
- Public events (seminars, open-air events during pilot flights)

Medical sector:

- Discussions on how drones can support healthcare services and the medical sector. Planning and conducting in cooperation with pilots.

Riga

Stakeholders:

- **Local authorities:** Riga City Council City Development committee, Riga City departments (Mobility, Development, Environment, Forestry), Municipal police, Neighborhood associations.
- **National authorities:** Ministry of Transport, Ministry of Economics, Latvian Investment and Development Agency, Ministry of Environmental Protection and Regional Development, Civil Aviation Agency - CAA, State joint stock company “Latvian air traffic”, State police, Riga Technical University.
- **Infrastructure & public service providers:** Drone association (LARPAS.lv), Drone operators and private companies (LMT.lv , HANSAB.lv , Droni.lv)
- **Medical sector:** Municipal health care institutions, Riga 2nd hospital.

Methods of stakeholder engagement:

Local authorities:

- Stakeholder meetings with city departments (Mobility, Development, Environment, Forestry)

- Coordination through working groups
- Surveys to gather input on drone-related topics (e.g., potential take-off/landing sites, urban air mobility acceptance)
- Co-organisation of awareness-raising events (e.g., seminars, workshops)
- Involvement in testing of tools (e.g., GIS-based planning tools for drone infrastructure)

National authorities:

- Stakeholder meetings focusing on regulatory alignment and legal frameworks for drone operations
- Discussions on use case examples, legal framework and safety
- Email communication to share updates, coordinate actions, and exchange knowledge
- Invitations to international workshops, project events, and pilot demonstrations
- Strategic dialogue and lobbying to ensure alignment with national transport, innovation, and environmental goals

Infrastructure & public service providers:

- Stakeholder meetings to discuss needs, challenges, and opportunities in drone service integration
- Collaboration in pilot planning and testing (e.g., drone delivery, surveillance use cases)
- Regular dialogue regarding legislative obstacles, safety regulations, and technical requirements
- Participation in the broader innovation ecosystem

Medical sector:

- Stakeholder meetings with municipal health institutions and hospitals
- Joint discussions on how drones can support medical logistics (e.g., emergency deliveries, lab samples, medication)
- Collaborative exploration of use-cases under the smart city and public health frameworks

Gdansk

List of stakeholders:

- **Local:** Mayor and management of relevant departments and units; Gdansk Roads and Greenery Managing Authority (Gdański Zarząd Dróg i Zieleni), Departments of Infrastructure (Wydział Infrastruktury), Geodesy (Wydział Geodezji), and Economic Policy (Wydział Polityki Gospodarczej) (particularly the Unit of Social Research Analysis), urban planners from the Gdańsk Development Bureau (Biuro Rozwoju

Gdańska), Municipal Police (Straż Miejska), Department of Security and Crisis Management (Wydział Bezpieczeństwa i Zarządzania Kryzysowego), Gdańsk Economic Development Agency Ltd "InvestGDA" (Gdańska Agencja Rozwoju Gospodarczego), local Police, Vocational high school Conradinum (particularly Drone profiled class)

- **Regional:** Marshall's Office of Pomeranian Region and relevant departments, Gdańsk-Gdynia-Sopot Metropolitan Area Association (OMGGS)
- **National:** Ministry of Infrastructure; Polish Air Navigation Agency (Polska Agencja Żeglugi Powietrznej), Civil Aviation Office (Urząd Lotnictwa Cywilnego), Łukasiewicz Institute of Aviation, Society of Polish Urban Planners (Towarzystwo Urbanistów Polskich), Union of Polish Metropolises (Unia Metropolii Polskich), New Mobility Association (Polskie Stowarzyszenie Nowej Mobilności)
- **Wider public:** residents of Gdansk including drone operators; drone producers
- **Medical sector:** two local hospital operators that in total manage 3 hospitals
- **Industry:** Chamber of Unmanned Aerial Systems (Polska Izba Bezzałogowych Systemów Powietrznych)

Methods of stakeholder engagement:

Local stakeholders:

- Formed a Local Steering Committee (LSC) with representatives of above mentioned local stakeholders.
- Email communication on regular basis with LSC (e.g. coordination of actions, knowledge sharing)
- Regular meetings to coordinate actions, explore the potential of UAM in Gdansk and lay the foundation for a city strategy
- Co-organisation of events (e.g. UAM seminar for cities in the region, city event to raise awareness internally)
- Local training events to raise awareness how drones will be a part of the daily work of city employees in the near future.

National stakeholders:

- Pre-feasibility discussions in relation to Gdansk pilots
- Email communication (e.g. knowledge sharing, CITYAM progress)
- Lobbying activities (e.g. necessity of regulations and relevant procedures for drone operations)
- Invitations to workshops / UAM events / Gdansk pilots

Industry:

- Discussions in relation to Gdansk pilots
- Involvement in the tendering process for Gdansk pilots
- Discussions in relations to challenges faced currently by drone operations

Residents:

- Disseminate the public acceptance survey (both general and use case parts) and its results
- Carry out marketing communications - raise awareness via press releases / social media posts
- Media coverage of Gdansk pilots and insights on the drone topic in general.

Local Steering Committee

- Discussions on how drones can support municipal services, the medical sector and the Police / how to overcome existing challenges (e.g. lack of regulation / necessary procedures)
- Pre-feasibility discussions in relation to Gdansk pilots (primary schools traffic safety audits) and site visits

3. City Policy Documents for Inclusion in UAM Integration

The second theme of the roadmap is on regulation & policy. It is important to have a structured approach to integrating UAM within the existing regulatory and policy framework. The first mapping exercise on this was done in November 2023 by the CITYAM partners and resulted in the report "CITYAM- Regulations and integration of Urban Air Mobility in city planning. An overview of national and local regulations in Baltic Sea Region countries and policy analysis for the introduction of Urban Air Mobility in cities and regions".

During the second year of the project, we dove into more detail on the applicable policies and regulations at municipal and regional level. What is clear in reviewing which policy plans the cities have listed, is that most cities share similar policies and strategies in their respective cities, focused on long-term land use planning, sustainable urban mobility, climate/environmental goals, transport safety, and innovation/digitisation and that these should be considered by any other city which is looking to integrate drones.

In the section below, the six cities in the CITYAM consortium have shared city policy documents that may need to be updated to include UAM. The needs will likely vary per city and this list likely does not include all documents, but aims to provide a good overview for other cities as to what kinds of policy documents they should keep in mind as they move to integrate UAM.

3.1 Stockholm

- **Overview plan** — An overview plan provides guidance for how land and water areas and the built environment are to be used, developed and preserved in the future. In this document the municipality shows its long-term ambitions. Together with objectives and budget, the master plan/overview plan is the municipality's most important overall governing document for achieving sustainable social development. In this type of document the planning of infrastructure for drones could be mentioned, such as where to plan droneports/vertiports.
- **The accessibility strategy** — this is the City of Stockholm's traffic strategy and it is connected with plans and strategies for the city's and the development of the transport system. In this strategy, UAM needs to be included as a new form of transport when it is more scaled up (focus should be deliveries with drones at first).
- **The environmental program year 2025-2030** — The program set out the goals for the city's work in the environment and climate area. One goal is about reducing climate impact and adapting the city to climate change.
- **The climate action plan 2020-2023** — This plan is developed in parallel with the environmental programme, it specifies how the city will achieve its ambitious climate goals. The goals are: A fossil free and climate positive Stockholm in 2040 and a fossil free organization in 2023.
- **Noise action program 2024-2028** — This program is a continuation of the City of Stockholm's long-term work to create good sound environments in the city. Such a program will need to consider the noise of an increasing amount of drones.
- **The safety program** — It establishes overall goals for the city's security work and describes how the work is to be carried out and followed up. The program also indicates which special focus areas the city has for security work: preparedness, security protection, accident prevention work and personal safety.
- **Safety program 2024-2027** — It specifies the direction for the city's crime prevention and safety-creating work.

3.2 Helsinki

- **MAL Plan (Helsinki Region Land Use, Housing and Transport Plan)** — The plan sets out a common target of the region's municipalities for the development of the region until 2040 and creates a vision until 2060. The plan also includes a statutory transport system plan. Approved in September 2023.

- **Helsinki General Plan** — The master plan is a long-term land use plan that guides the city community structure development. The time span of the master plan's vision is until 2050.
- **Helsinki region transport system plan HLJ** — The Helsinki region's transport system plan HLJ 2015 is a long-term strategic plan that describes the region's common will regarding the future transport system, its development and use.
- **Building order of the city of Helsinki** — It concerns the building regulations of the Helsinki city. Helsinki's new building regulations entered into force on 7 June 2023.
- **City logistics. Procedure program** — It presents the background of the urban logistics development program, principles and measures as well as their responsibilities and schedule.
- **Helsinki traffic safety development program** — The starting points of Helsinki's traffic safety development program have been the national traffic safety plan "Goals come true. Road traffic safety plan until 2014" and the traffic safety strategy of the Helsinki region (HSL 20/2012). These programs have outlined the traffic safety goals of Finland and the Helsinki region, as well as the presented traffic safety work priorities.
- **Helsinki smart transport development program 2030** — It defines the necessary development measures in priority areas defined as the collection and utilization of traffic data, traffic management by digital means, Helsinki's role in new services and traffic automation.
- **Helsinki's policies for adapting to climate change 2017–2025** — It sets adaptation guidelines and vision. The guidelines look at climate change in the long term until the end of the century. The Adaptation Vision 2050 is a long-term review and the time span is the same as the time span of the general formula.
- **Carbon neutral Helsinki 2035 action program -** Focus on heating, electricity and transport.
- **Action program of the city strategy 2022-2025**
- **Helsinki noise control action plan 2018–2022** — The action plan presents goals for reducing noise nuisances and noise control measures for the years 2018–2022.
- **Air protection and noise prevention plan 2024-2029 (ILME)** —The ILME plan includes air protection and noise control goals and measures for the next five years.
- **Transport 12 - 2025-2036 national transport system plan** — It is a 12-year strategic document that deals with the entire Finnish transport system at the national level in all forms of road. The plan examines e.g. networks, traffic services and information aspects of traffic. The plan examines both passenger and freight traffic.

3.3 Hamburg

- **Digital Mobility Strategy** — The Free and Hanseatic City of Hamburg aims to drive forward the mobility transition through stronger digitalisation processes. It's the 2024 evolution of the ITS-Strategy for Hamburg which provides the basis for the further development of intelligent transportation systems (ITS) in Hamburg in order to promote the use of information and communication technology (ICT) and innovative technologies in the transport sector in a structured manner and to drive forward the digital transformation in a profitable way.
- **Use of Drones - Hamburg's Activities and Objectives of the Authority for Economy and Innovation, Handout/White Paper** — A guide on the economic utilization of drones
- **Port Development Plan 2040 - Strategic Vision** — The strategy *Innovation Port 2040 2040* describes the new perspectives of the Hamburg Senate's port policy. It identifies guiding principles as well as important fields of action and goals in order to utilize the development potential.
- **Port Development Plan 2040 - Operative Vision** — The port development plan describes fields of action, objectives and guiding principles and condenses these into the vision for future port development.
- **Regional Innovation Strategy** — The sponsors of the Hamburg Metropolitan Region want to further strengthen their location for business and innovation and further increase its national and international competitiveness.
- **Digital Strategy Hamburg 2020** — The digital strategy for Hamburg focuses on all areas of life, all digital spaces and opens up the perspective for all parts of urban society.
- **Hamburg Aviation STRATEGY Update 2021** — The 2021 strategy is intended to help the aviation cluster focus on the effective levers for supporting aviation companies.

3.4 Tartu

- **Tartu City Development Plan** — The long term (2025-2035) development plan for the city, specifies how the city will achieve its long term goals.
- **Sustainable Urban Mobility Plan for Tartu Region** — The regional SUMP is a long term plan for the development of sustainable mobility in the region. Drone topics will be included. The plan is under development and expected submission is in 2027.
- **Drone strategy 2026-2030** — A guide on the utilization of drones in the Tartu metropolitan area. Strategy will serve as an input to different development documents.

- **Tartu City Master Plan 2040+** — The master plan is a long-term land use plan that guides the city community structure development. The time span of the master plan's vision is beyond 2040.

3.5 Riga

- **Riga City Master Plan** — The Riga Spatial Plan is a long-term territorial development planning document of the Riga Municipality which sets out requirements for the use and development of the territory.
- **Sustainable Development Strategy of Riga until 2030** — The Sustainable Development Strategy of Riga until 2030 is the city's long-term planning document that outlines the vision, priorities, and strategic goals for the capital's sustainable growth. It emphasizes a balanced approach to economic development, environmental protection, and social well-being, aiming to make Riga a competitive, inclusive, and green city.
- **Riga mobility vision 2050** — vision for the development of mobility in Riga until 2050, complemented with the Sustainable Mobility Action Plan, which summarizes activities related to mobility in Riga in the short, medium and long term.

3.6 Gdansk

- **General Plan of the City of Gdansk**, which will replace the study of land use conditions and directions — a mandatory planning document covering the area of a municipality. This act of local law will be taken into account in the preparation of local development plans and forming the basis for the issuing of development decisions. It is intended to indicate in which parts of the city parks, roads, housing estates or workplaces can be built. The digital document will consist of spatial data and justification (graphics and text).
  The municipality's general plan will compulsorily contain provisions on:
  - planning zones (defining the manner of development of individual areas),
  - municipal urban planning standards (defining the intensity, height and area of development and the minimum biologically active area).
  - The basic urban planning arrangements contained in the general plan will allow for a balanced and harmonious development of the city.

- **Gdansk Development Programs 2030** — The Gdańsk Development Strategy defines the framework of local development for the city and is a key element of its strategic management. It is the basis for the creation and continuous socio-economic development of Gdańsk to improve the quality of life of its inhabitants. The Development Programmes resulting from the Strategy set out the directions of

activities that will serve the implementation of the four strategic objectives in the coming years: Green City, Common City, Accessible City and Innovative City.

- **Strategy for Electromobility Development in Gdansk until 2035** — a document supplementing the Gdańsk Development Strategy and the Operational Programme Mobility and Transport with aspects related to electromobility. The strategy was created as a response to the Act on electromobility and alternative fuels and as a result of a competition held by the National Fund for Environmental Protection and Water Management. Among other things, the document cites examples of good practice in the field of sustainable transport, national and Gdansk strategic documents in this area, and outlines the obligations imposed on local authorities in the field of electromobility development. Above all, however, the Strategy contains recommendations for Gdańsk, strategic objectives and a description of related actions. The document gives priority to public transport and active forms of urban travel in order to reduce the number of journeys made by private cars and the overall number of cars in the city. If a trip is to be made by car, it should preferably be made with alternative propulsion and using shared mobility.
- **Sustainable Urban Mobility Plan (SUMP) Gdańsk** — Thanks to sustainable mobility plans, European cities are gradually changing their “transport face”. Such a plan has also been drawn up for Gdańsk. The measures contained in it, planned until 2030, are to stop the trend of the growing role of car transport by improving conditions for pedestrians, public transport passengers and cyclists, as well as a consistent parking policy. Great emphasis is also placed on improving the quality of public spaces.
- **Crisis Management Plan of the City of Gdansk** — update 2024 The Municipal Crisis Management Plan (MPZK) was developed on the basis of the Act of 26 April 2007 on Crisis Management.
  The plan covers all phases of crisis management, i.e. prevention, preparation, response and recovery.
  It is a tool to support the crisis management system to prevent the emergence of a crisis situation or, in the event of its occurrence, to take planned actions that will prevent its development and minimise the effects of the event.
  The MPZK provides a quick overview of the responsibilities of the various authorities and monitors the risks identified in the safety net. The list of forces and resources provides the knowledge for action planning and shows potential partners and task contractors with equipment and expertise.
- **Gdansk City Street Standard** — The procedures, model solutions and recommendations indicated in the study will be applied in the preparation of projects for new streets and the reconstruction of existing streets. GSUM is a strategic document, which is an expression of the policy of the City of Gdańsk formulated in the Strategy Gdańsk 2030+, Study of Conditions and Directions of Spatial Development of the City of Gdańsk and the Plan of Sustainable Urban

Mobility for Gdańsk 2030+, according to which the highest priority will be given to pedestrians, cyclists and public transport when designing city streets. Streets will have a different character resulting from their vicinity. The document contains guidelines for detailed solutions of road lane development and street design together with examples of model solutions concerning both spatial, functional and aesthetic scope.

- **Landscape Resolution of Gdańsk** — has been in force since 2 April 2018. It aims to strengthen landscape protection and spatial order in the city area. The document sets out the terms and conditions for the siting of: billboards and advertising devices; small architecture objects; fences. The city is divided in the Resolution into 8 historical-functional areas, for which separate specific arrangements apply. Additional protection is afforded to objects and areas entered in the register of historic monuments, as well as objects entered in the municipal register of historic monuments.

3.7 Recommendations & Conclusion

We will conclude this report by summarizing our key recommendations that we would like to share with other cities looking to implement UAM initiatives:

- **Establish recurring coordination meetings with local authorities and different city units** to ensure continuous dialogue, integration of UAM with city plans, and UAM alignment with local regulations.
- **Conduct early and in-depth pre-feasibility discussions with national authorities** to understand regulatory frameworks, identify gaps or unclarities, foster joint understanding, and secure necessary approvals.
- **Ensure consistent communication and engagement with all relevant stakeholders** through both online and in-person meetings to encourage collaboration and shared understanding.
- **Organise workshops for local and regional authorities** to raise awareness and understanding of UAM's potential and challenges.
- **Proactively invite stakeholders to UAM events and pilot projects** to provide firsthand exposure and facilitate direct engagement.
- **Actively participate in panel discussions at local / (inter) national UAM events** to share insights, discuss challenges, and foster collaboration, ultimately leading to greater understanding, and a more cohesive UAM approach.
- **Utilise consistent email communication** for coordination, information sharing, and synergies.
- **Undertake targeted lobbying activities with national authorities** to advocate for supportive regulations and policies.
- **Implement a citizen engagement strategy** that includes surveys, public awareness campaigns through various media, and targeted communication for local pilot projects

to address concerns and foster public acceptance.

The CITYAM project has enabled each partner city — Hamburg, Helsinki, Stockholm, Riga, Tartu and Gdańsk — to take concrete steps toward embedding urban air mobility in local planning. By aligning early UAM concepts with existing policy documents and mobilising political and administrative stakeholders, the project has raised awareness of UAM's potential and begun to build internal expertise across city departments that had little prior exposure to the topic. Targeted training sessions, round-tables and regular update meetings have ensured that the insights and lessons gathered during the project feed directly into the next revision cycles of municipal strategies, while simultaneously cultivating champions for UAM within local government.

Since Urban Air Mobility policy planning cycles extend well beyond the lifetime of a single project, CITYAM has prioritised knowledge-sharing across borders and sectors. Ongoing workshops, cross-city exchanges and public demonstrations have reinforced each city's roadmap and knowledge base, while generating a transferable set of good practices that any municipality can adapt when beginning its own UAM journey. In summary, the project has laid a collaborative foundation, produced a practical roadmap and demonstrated the value of sustained, multi-stakeholder engagement — positioning UAM as an integral component of future-ready, sustainable urban mobility systems.